

35. The combination according to claim 34 wherein said cruise mode off condition for charging a battery comprises a speed less than a predetermined value.

36. The combination according to claim 34 wherein in the event of an inoperable electric power condition under cruise mode off condition, said combustion engine is connected by said first coupling means to said second pair of wheels.

37. A controller of a hybrid electric vehicle having an engine (22) and a motor (12) for controlling driving of the engine(22) and the motor(12), comprising:

a battery(58) for supplying electric power to the motor(12) motor-generated driving force transfer means(14) for transferring the driving force generated by the motor(12) to wheels(18);

a power generator(78) driven by the engine(22) to supply generated electric power to the battery(58);

engine-generated driving force transfer means(75) for transferring the driving force generated by the engine(22) to the wheels(28);

means for detecting a vehicle running state(44); and control means(30) for controlling whether to transfer a driving force generated by an engine(22) to a power generator(78) or wheels(28) in accordance with a vehicle running state, wherein the control means(30) transfers the driving force generated by the engine(22) to wheels(28) when said running state is more than a predetermined value, transfers the driving force generated by the engine(22) to the power generator(78) when said running state is less than a predetermined value.

38. A controller according to claim 37 wherein said control means(30) sets a period for transferring driving forces generated by the engine(22) to wheels(28) when said running state changes from a value less than a predetermined value

to a value larger than the predetermined value.

39. A controller according to claim 38 wherein said period is about 45 seconds.

40. A controller according to claim 37 wherein said running state is vehicle speed.

41. A controller according to claim 40 wherein said vehicle speed is about 40 miles per hour.

REMARKS

Claims 30-33 stand allowed.

Claims 34 and 37 comprise two further independent claims which have been added to further define with specificity applicants contribution to the advancement of the hybrid motor vehicle art.

Claim 34 adopts identical language of allowed claims 30 and 32 (the first eight lines thereof). Claim 34 further defines an operating range for the combustion engine over narrow ranges of speed and load therefore permitting the combustion engine to be operated continuously near peak efficiency. See e.g., page 2, lines 19-24 for antecedent support.

Independent claim 37 is a detailed comprehensive claim defining the present system. Numerals are inserted for reference to antecedent basis in the exemplary embodiment described in the specification. Claims 38 and 39 define a period of transfer referenced in claim 37 (See page 5, line 6).

Claims 35 and 36 dependent from claim 34 add further specificity to the definition of the system of claim 34, e.g. claim 36 references operation in the event of a power failure under cruise mode off condition (See page 7, line 29 on). Claims 40 and 41 relate to vehicle speed.

It is believed that the claims presented clearly define over the prior art which notice is respectfully solicited.

Respectfully submitted,

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